

Weekly Report

18/06/2019 – 24/06/2019

The progress of the last week, I tune my thought on the same page with Junhua thought. Last few weeks, I have misunderstood the concept that my topic should go, but now I believe it was refined in the right way. The idea that I understand now is I have to find the way to explain when and how the data visualization should be zoom in/out, fast/slow, freeze frame/moving, tagged/no tagged annotation. Last week, I discussed my idea at least five ideas with Junhua until getting what he wants.

By the way, last weeks I read a lot of papers, online articles and talked with my Thai friends who are a filmmaker to find the concept about when and how the filmmaker think when editing the video.

One idea I get from this article "Effectiveness of Feature-Driven Storytelling in 3D Time-varying Data Visualization" is the data feature. The data features that I think it should be extracted from our data set (I think I will use the dataset from Hans' video) are "Outlier, Highlight contrast, Intersection (if needed), and data change over time.

Moreover, back to your paper again [2], I think this technique that changes the timeline (Hans' data can be altered to timeline too) to event graph it may be possible to Hans' data. However, Han's data have many attributes (countries), so the event graph of each country would be created. If so, when the video renders from time to time, each event graph will be travelled to find the data features, so when user travel from one event graph at time1 when moving to time2 may be jumping from the one event graph to another event graph to find data features and highlights them with actions (zooming, speed, annotation).

From the two above papers, I try to represent them with filming technique as Fabula and Syuzhet. I got this concept from my friend, who is a filmmaker. They said I have to think about this concept as the pieces of visualization (each event graph) as Fabula (the raw material of a story) and Syuzhet (the way a story is organized) in my case may be the main event graphed that generate from the highlight data features. I mean at each time, for example, the outlier will be not the same country so the system should represent the most outlier).

Move to the characteristic of the action I read an article about "Exploring the 7 Different Types of Data Stories" [4]. Moreover, It is quite common as human thinking. The places that are the outliers should be the focus, with zooming speed, etc.

Lastly, now I'm reading about Film and Video Editing Theory to find a suitable formula to represent about zooming, speed, etc. Anyway, as I was reading till now, I didn't find any recipe or concrete theory. Maybe I will create my rules for describing it.

[1] Yu, L., Harrison, L., & Lu, A. (2017). Effectiveness of Feature-Driven Storytelling in 3D Time-Varying Data Visualization. *Journal of Imaging Science and Technology*, 60(6), 604081–6040811. <https://doi.org/10.2352/j.imagingsci.technol.2016.60.6.060408>

[2] Yu, L., Lu, A., Ribarsky, W., & Chen, W. (2010). Automatic animation for time-varying data visualization. *Computer Graphics Forum*, 29(7), 2271–2280. <https://doi.org/10.1111/j.1467-8659.2010.01816.x>

[3] https://en.wikipedia.org/wiki/Fabula_and_syuzhet

[4] <http://mediashift.org/2015/06/exploring-the-7-different-types-of-data-stories/>

[5] *Film and Video Editing Theory* by Michael Frierson, Published by Focal Press, 2018